<u>AMENDMENTS TO THE CLAIMS</u>

The following listing of claims will replace all prior versions, and listings, of claims in the application:

<u>LISTING OF CLAIMS</u>:

1. (Currently amended): A method of data analysis for determining a base sequence for nucleic acid, based on detected data of electrophoresis of a fragment sample of nucleic acid, comprising steps of:

(A) performing waveform shaping by Fourier transformation on data of a certain number N of points from the head of the detected data ~~with a parameter of a previously set~~ using a predetermined peak interval <u>as a parameter</u>;

(B) determining the base sequence as to data of P points (P < N) from the head of the data of N points;

(C) obtaining a <u>subsequent</u> peak interval from the result of the <u>most recent</u> sequence determination;

(D) performing waveform shaping by Fourier transformation on data of N points <u>starting</u> from a position returning by L points (L < M) from ~~final data precedently~~ <u>a final point of the data</u> <u>most recently</u> subjected to the sequence determination ~~with a parameter of a precedently obtained~~ using the subsequent peak interval <u>as a parameter</u>; and

(E) determining the base sequence as to data of M points (M < N) of a central portion among <u>the</u> data of N points subjected to ~~second or later~~ waveform shaping <u>in step (D)</u>, so as to be connected with data ~~precedently~~ <u>most recently</u> subjected to the sequence determination, wherein the steps (E) → (C) → (D) are repeated until ~~data disappear~~ <u>all data has been analyzed</u> or no analysis is required despite presence of data.

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2. (Currently amended): The method of <u>data analysis for</u> determining a base sequence for nucleic acid according to claim 1, wherein

FFT treatment is applied <u>to at least one of steps (A) or (D)</u> as the waveform shaping by Fourier transformation.

3. (Currently amended): The method of <u>data analysis for</u> determining a base sequence for nucleic acid according to claim 2, assuming that N is equal to 2^n, M is equal to $2^{(n-1)}$ and L is equal to $2^{(n-2)}$.